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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/407,307	09/29/1999	TADASHIGE IWAO	1359.1013	2590

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EXAMINER

NGUYEN, VAN H

ART UNIT PAPER NUMBER

2126

DATE MAILED: 02/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/407,307

Applicant(s)  
IWA0 et al.

Examiner  
VAN H. NGUYEN

Art Unit  
2126



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Sep 29, 1999
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3 6) ☐ Other:

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### **DETAILED ACTION**

1. This Office Action is in response to application filed on September 29, 1999. Claims 1-10 are presented for examination.

#### ***Specification***

2. The disclosure is objected to because of the following informalities:
  - On page 1, line 8, "which can adjusts" should be "which can adjust"Applicant should review the entire specification and make appropriate corrections.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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- Claim 1, the limitations "a requesting message" (line 11) and "a bidding message" (lines 12-13) are vague and indefinite.
- Claim 2, the limitation "the task initiator object" (line 3) lacks antecedent basis.
- Claim 9, the limitation "the task initiator object" (line s 1-2) lacks antecedent basis.
- Claim 10, line 11, the limitations "a requesting message" and "a bidding message" (lines 12-13) are vague and indefinite.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over **SKINNER** (U.S.5,377,350) in view of **BANAVAR et al** (U.S.6,425,016 B1).

As to claims 1 and 10, Skinner discloses an object collaboration apparatus (an object oriented cooperative data processing system; col.3, lines 58-68) comprising:

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- a plurality of objects (objects), each object comprising a message receiving portion (messenger 51) for monitoring (controls) and obtaining a message (messages) transmitted over a network (communication), a reaction table (an Object Management Table 52) for storing an action content (active object instances) which is a reaction to the message and wherein a reaction relationship of messages and actions (each message is comprises of the object and action) defined in the reaction table drives the object collaboration apparatus, and an action executing portion (method be performed) for executing processing in accordance with the action content (col.7, lines 3-64);

- a requesting message sending portion (sends the target a message requesting; col.7, lines 44-51) for sending a requesting message (a message requesting; col.7, lines 44-51) in which an object (the first objects) that initiates a task requests processing of the task (successfully performed messages) from other objects (from the second objects; col.3, lines 26-40);

- a bidding portion for returning a bidding message (Messenger 51 obtains a pointer) if an action corresponding to the task that is requested in the requesting message (message) is present in the reaction table (searching Object Management Table 52 for the instance object; col.7, lines 13-31);

- a bid awarding portion for determining (determines), from among objects (the server object's affinity) returning a bidding message (the client object 102' sends a message by issuing a call), an object (the local server object) to which processing (execution) of the task is assigned (col.8, lines 61-68); and

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Skinner, however, does not explicitly teach “a bid awarding notifying portion for notifying the selected object of a bid awarding determination; wherein, if there are a plurality of competing objects that can provide an action in response to the task request by executing an action in response to the requested task when receiving a bid awarding notification, the selected object, of which task processing is requested, is determined by a bidding system.”

Banavar teaches (col.8, lines 35-44) a bid awarding notifying portion (notify list 403) for notifying (notifies) the selected object of a bid awarding determination; wherein, if there are a plurality of competing objects (all model objects) that can provide an action (the operation has executed) in response to the task request by executing an action in response to the requested task when receiving a bid awarding notification, the selected object, of which task processing is requested, is determined by a bidding system.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Banavar with Skinner because it would have provided “a concurrency control mechanism records the reads and updates of the data and of collaboration relationships within a single transaction site and guarantees that they are applied atomically and consistently to both the local and remote replica objects of the collaboration” (col.2, lines 9-14).

**As to claim 2**, Skinner discloses (col.7, lines 3-51) the bid awarding portion uses, as one bid determining parameter (parameters), a communication time that is necessary for communication between the task initiator object and the objects sending (sends) the bidding

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message (message), and preferentially awards a bid to an object that has a short communication time between objects.

**As to claim 3**, Skinner discloses (col.7, lines 3-67) the bid awarding portion uses, as one bid determining parameter (parameters), an empirical value of past processing performances for similar tasks of the objects sending (sends) a bidding message (a message) , and preferentially awards a bid to an object (object) that is expected to have a high processing portion selects an object (object) that is good at processing the requested task, and preferentially awards a bid to an object (object) that is expected to have a high processing performance for the request task (requesting message).

**As to claim 4**, Skinner discloses (col.7, lines 3-67) the bidding portion includes, in a bidding value, a bidding parameter (parameters) that shows its own condition with respect to a task (an object-action message) for which the bidding portion returns a bidding message (a message), and the bid awarding portion determines a bid-winning object using the bidding value as one bid determining parameter.

**As to claim 5**, Skinner discloses (col.7, lines 3-67) the bidding portion sends the bidding message using, as one bidding parameter (parameter), processing resources that can be assigned to a requested task processing (is requested to perform), and the bid awarding portion selects an object (an object-action message) having a bidding value indicative of large processing resources that can be assigned, and preferentially awards a bid to the selected object as the bid-winning object.

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**As to claim 6,** Skinner discloses (col.7, lines 3-51) the bidding portion sends the bidding message using, as one bidding parameter (parameter), an object load ratio showing a ratio of the already assigned processing resources (Classes Table 53 will load) to the bidding object's original processing resources, and the bid awarding portion selects, from the object load ratios in the bidding values, an object having a small load that is already assigned, and preferentially awards a bid to the selected object as the bid-winning object.

**As to claim 7,** Skinner discloses (col.7, lines 3-51) the bidding portion sends the bidding message using, as one bidding parameter (parameter), a computer load ratio indicating a ratio of the already assigned processing resources to the processing resources of a computer (Classes Table 53 will load) that is executing the bidding object, and the bid awarding portion selects, from the computer load ratios in the bidding values, an object that is executed (is executed) on a computer having a small load that is already assigned, and preferentially awards a bid to the selected object as the bid-winning object.

**As to claim 8,** Skinner discloses (col.7, lines 3-51) the bidding portion sends (ends) the bidding message (a message) using, as one bidding parameter (parameter), a skillfulness at the task, which is based on resources available to the bidding object, and the bid awarding.

**As to claim 9,** Skinner discloses (col.7, lines 3-65) the task initiator object has a bidding portion that generates a bidding message (sends the target a message requesting) in response to the requesting message (a message requesting) sent by the task initiator object, and the bid awarding portion processes the bid awarding selecting an object (one object) in accordance with



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bidding messages sent from both other objects and a bidding messages from the own terminal's bidding portion and selects the most appropriate object for the task processing from among all objects including itself.

### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H NGUYEN whose telephone number is (703) 306-5971. The examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM. The examiner can also be reached on alternative Friday.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9000.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademark  
Washington, DC 20231

**or fax to:**

(703) 746-7239 (for formal communications intended for entry)  
(703) 746-7238 (for After Final communications)  
(703) 746-7140 (for informal or draft communications)

VHN  
02/07/03



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